NATURAL RESOURCE YEAR

in Review 1997

A report of the National Park Service

summarizing and analyzing the year in natural resource stewardship in the national park system

Natural Resource Year in Review—1997
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Front Cover:
Although its waters appeared serene in Cooks Meadow near Half Dome, a New Year's Day (1997) flood in Yosemite Valley damaged roads, bridges, trails, campgrounds, vehicles, employee residences, and lodging units. A natural event, the 100-year flood generally confirmed the wisdom of park plans to remove or relocate some visitor facilities from the floodplain to less sensitive park areas (see story on page 33).

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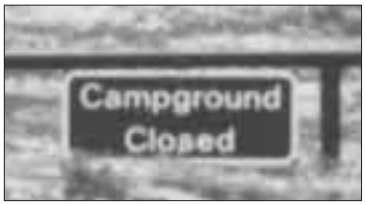
Scott Cook



FOREWORD

As the recently confirmed 15th Director of the National Park Service, I take great pleasure in presenting the *Natural Resource Year in Review—1997*. Natural wonders abound in the national park system. Seemingly pristine, they draw us in, inspire awe, and symbolize our spirit as a great nation. Yet, in this age especially, nature requires care if it is to be preserved. This report both celebrates the natural diversity found in the parks and describes the complex job of caring for that diversity in modern landscapes. It summarizes the major issues we faced and the trends that developed during the calendar year, and in doing so, preserves a record of our natural resource management activities. It also provides an analysis of why our activities were important and where we need to go from here.

Vital to our goal of resource preservation is a natural resource management program across the Service that matches the level of our efforts to the requirements of this awesome challenge. The recent release of the book *Preserving Nature in the National Parks: A History,* by Richard West Sellars, has given us a fresh perspective on this subject. History shows that while visitor enjoyment of parks has been an important aspect of our mission, the preservation of nature and integration of science in management have been inconsistent and underemphasized. Indeed, we are successful in providing parks for visitors to enjoy. Now the time is right to bolster resource preservation.

In December, at my request, the National Leadership Council began preparing a policy and strategy that will help institutionalize enhanced natural resource management capabilities in the Park Service. Actions will focus on both short- and long-range needs, including efforts to generate broad interest in our natural resource protection role. If Administration budget allowances and priorities allow, budget initiatives for fiscal year 2000 and beyond will seek increases in natural resource funding, staffing, and programs such as the Inventory and Monitoring Program, Natural Resource Preservation Program (NRPP), the Resources Careers Initiative, and a professional development training program. Obtaining and using the best available science in park management is also a focus of these efforts. Change of this magnitude and nature will take time, but we will see it through.

Garnering support for these initiatives is predicated on our ability to define in compelling terms what our natural resource program seeks to accomplish. This report helps address this need through its honest and popular presentation of resource protection challenges and the role the National Park Service plays in addressing them. Ecosystem health in parks is no accident; without adequate information, without resource managers to apply that knowledge as "ecosystem physicians," and without park managers to rally support, our legacy of natural wonders would surely suffer greater damage and attrition. As you read the stories of the past year, you will be struck by the variability and complexity inherent in our task—to preserve unimpaired the natural resources of the national park system for the enjoyment of future generations. To succeed, we must build a National Park Service that can match the challenge of these tasks every year.

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Sitka spruce, Redwood National Park, California

THE YEAR IN REVIEW

As we chronicle 1997, what is the emerging message—the takeaway lesson? The year began under the pall cast by the killing of nearly 1,100 bison by the State of Montana and the National Park Service to control brucellosis as the animals left the harsh winter conditions of Yellowstone National Park. Disagreemets over the need to take such extreme action were highlighted during a year of preparation of a joint long-term bison management plan. The Secretary of the Interior brought in the National Academy of Science to settle the major technical points. Other wildlife issues, such as the overabundance of white-tailed deer, placed parks in the crossfire between park neighbors and animal rights advocates.

Beyond park boundaries, the year was dominated by large-scale phenomena. During summer, the ambush dinoflagellate *Pfiesteria* bloomed in the Chesapeake Bay, causing widespread fish kills and concerns for both the health of humans and the bay ecosystem. Questions about the reality of global warming and climate change were also pervasive, with inquiries into what El Niño was really responsible for leading the way. Most significantly, rising recognition of the overpowering success of the human species in dominating its habitat was apparent. On July 25, *Science* devoted an issue to "Human Dominated Ecosystems." Various articles concluded that (1) between one-third and one-half of the earth's surface has been transformed by human action; (2) the carbon dioxide concentration in the atmosphere has increased by nearly 30% since the beginning of the Industrial Revolution; (3) more atmospheric nitrogen is fixed by humanity than by all natural terrestrial sources combined; (4) more than half of all accessible fresh water is put to use by humanity; (5) about one-quarter of the bird species on earth have been driven to extinction; and (6) approximately two-thirds of major marine fisheries are fully exploited, overexploited, or depleted (for a summary of these findings see J. Lubchencko. *Science*. January 23, 1998). Thus, no longer a mere part of the ecosystem, the human species has become a force of nature. As this process accelerates, preserving the natural systems of our national parks takes on greater implications both for park managers and for society.

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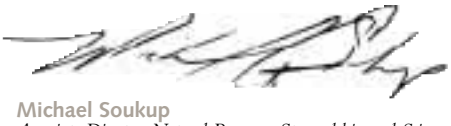
In the fall, publication of Richard Sellars' *Preserving Nature in the National Parks* (Yale University Press) documented the National Park Service's historical neglect of natural resource management. Subsequent discussions by the NPS National Leadership Council and a call by Director Bob Stanton have resulted in a process to rejuvenate natural resource management to meet the challenge of preserving parks in a human-dominated landscape. Thus, the year ended on a note of both serious reflection and promise. The events and accomplishments of 1997, described herein, demonstrate the breadth and severity of our challenges. They also showcase the nucleus of talent, creativity, and commitment the National Park Service already possesses to make real progress in achieving natural resource protection in 1998.



Michael Soukup
Associate Director, Natural Resource Stewardship and Science

Heartleaf arnica, Yellowstone National Park, Wyoming

Year at a Glance

January
- *Yosemite Valley floods, prompting assessment of damage to facilities and resources.*
- *First senior scientists hired during year to ensure park research and technical assistance needs are met.*

February
- *First Canon Scholars park research competition announced to 565 universities and in the journal* Science.

March
- *George Wright Society biennial meeting draws high superintendent turnout.*

April
- *Kemp's Ridley turtles return to Padre Island National Seashore to nest for third consecutive year.*
- *Land management agencies brief Congress on joint strategy for attacking invasive plants.*

May
- *President Clinton and Secretary Babbitt celebrate long association of U.S. and Costa Rican national parks at Central American economic summit.*

July
- *Forty nonnative zebra mussels discovered in a new portion of St. Croix River.*
- *Army Reserve engineer units restore abandoned mine lands at El Malpais National Monument.*

August
- *Director's award winners for natural resource management announced.*
- *Ecological restoration of the Sequoia Giant Forest begun.*
- *Natural Resource Advisory Group meets for first time.*

September
- *Nonnative ball python confirmed on Maui near Haleakala National Park.*

October
- *The book,* Preserving Nature in the National Parks, *published.*
- *Yellowstone agrees to study the effects of winter use on bison.*
- *Fiscal year 1998 appropriation funds Social Science Program and new Abandoned Mine Lands Program, and provides increases to Air Resources and Inventory and Monitoring Programs.*

November
- *Standardized position descriptions drafted for professional and technical natural resource management series.*
- *Congress appropriates funds for purchase of New World Mine near Yellowstone.*

December
- *Judge rules Yellowstone wolf reintroduction illegal.*
- *National Leadership Council explores means to invigorate NPS natural resource management programs.*